

Exhibit No.:
Issues: Cross-Over
Witness: James M. Maples
Sponsoring Party: Sprint
Type of Exhibit: Direct Testimony
Case No.: TO-2004-0207
Date Testimony Prepared: December 18, 2003

**SPRINT MISSOURI, INC.
AND
SPRINT COMMUNICATIONS COMPANY, L.P.**

DIRECT TESTIMONY

OF

JAMES M. MAPLES

FILED
FEB 09 2004
**Missouri Public
Service Commission**

**IN THE MATTER OF A COMMISSION INQUIRY INTO
THE POSSIBILITY OF IMPAIRMENT WITHOUT
UNBUNDLED LOCAL CIRCUIT SWITCHING WHEN
SERVING THE MASS MARKET**

CASE NO. TO-2004-0207

Jefferson City, Missouri
December 2003

Exhibit No. 9
Case No(s). TO-2004-0207
Date 1-27-04 Rptr KF

BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

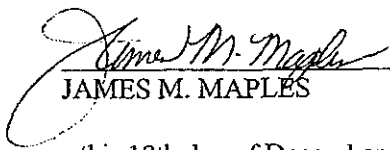
In the Matter of a Commission Inquiry)
into the Possibility of Impairment without)
Unbundled Local Circuit Switching When)
Serving the Mass Market) Case No. TO-2004-0207

AFFIDAVIT OF JAMES M. MAPLES

STATE OF KANSAS)
) ss:
COUNTY OF JOHNSON)

I, James M. Maples, being of lawful age and duly sworn, dispose and state on my oath the following:

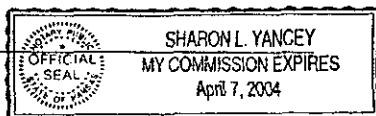
1. I am presently Senior Manager, Regulatory Policy for Sprint Missouri, Inc.
2. I have participated in the preparation of the attached Direct Testimony in question and answer form to be presented in the above entitled case;
3. The answers in the attached Direct Testimony were given by me; and,
4. I have knowledge of the matters set forth in such answers and that such matters are true and correct to the best of my knowledge and belief.


JAMES M. MAPLES

Subscribed and sworn to before me on this 18th day of December, 2003.


NOTARY PUBLIC

My Appointment Expires:



1 **BEFORE THE PUBLIC SERVICE COMMISSION**
2 **OF THE STATE OF MISSOURI**
3 **DIRECT TESTIMONY**
4 **OF**
5 **JAMES M. MAPLES**
6
7

8 **Q.** Please state your name, business address, employer and current position.

9 A. My name is James M. Maples. My business address is 6450 Sprint Parkway,
10 Overland Park, KS 66251. I am employed as Senior Manager – Regulatory
11 Policy for Sprint/United Management Company.
12

13 **Q.** Please summarize your qualifications and work experience.

14 A. I received a Bachelor of Science degree from East Texas State University,
15 Commerce, Texas, in December 1973 with majors in mathematics and industrial
16 technology. During that period, beginning in 1968, I was also employed by
17 Sprint/United Telephone Texas as an installer/repairman of residential, simple and
18 complex business systems and as a central office switchman. I completed the
19 company's Management Training program in 1974 and was promoted to the
20 position of Revenue Requirement Analyst later that same year.
21

22 For the next seventeen (17) years I held positions of increasing responsibilities in
23 state, regional and corporate Sprint organizations. During that period, I prepared

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1 or was responsible for jurisdictional separation studies, revenue budgets, demand
2 forecasts, access charge rates, and financial reporting to various regulatory
3 agencies.

4
5 From 1991 through 1995, as Manager Cost Allocations at Sprint/United
6 Management Corporation, I developed financial models for alternative regulation,
7 participated in a two year project to develop a system-wide product costing
8 model, developed and trained personnel on revenue budget models, and
9 standardized systems for separations costing through system design, development,
10 testing and implementation.

11
12 In 1995 I accepted the position of Manager-Pricing/Costing Strategy and for 17
13 months coordinated several system-wide teams that were charged with the
14 identification and development of methods, procedures, and system changes
15 required to implement local competitive services. During that period, I
16 coordinated the technical support needed to establish and maintain relationships
17 with Competitive Local Exchange Carriers (CLECs).

18
19 From September 1996 through July 1999 I held the position of manager of
20 Competitive Markets – Local Access with the responsibility for pricing unbundled
21 network elements, supporting negotiations with new competitive carriers, and
22 assisting in implementation issues.

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1 I began my current position in August 1999. My responsibilities include the
2 review of legislation, court rulings and state Commission orders affecting
3 telecommunications policy, interpreting the impact to the corporation, developing
4 positions, communicating them throughout the organization, and representing
5 them before regulatory bodies such as the Public Service Commission of the State
6 of Missouri.

7

8 **Q. Have you previously testified before state regulatory commissions?**

9 A. Yes. I have testified before the Florida, Nevada, and California regulatory
10 commissions regarding interconnection and network unbundling issues.

11

12 **Q. What is the purpose of your testimony?**

13 A. The purpose of my testimony is to present Sprint's position regarding the
14 appropriate policy for determining the multi-line customer cross-over between
15 mass market customers served via DS-0 (voice grade) loops and enterprise
16 customers served via DS-1 loops. My testimony also includes Sprint's
17 recommended approach for calculating the multi-line cross-over and the results
18 for the state of Missouri. This study is a subset of the economic analyses that
19 state commissions were directed to conduct as a result of the FCC's Triennial
20 Review Order (TRO) and codified in 47 CFR 51.319(d)(2)(iii)(B)(3).

21

22 **Q. Please define a DS-0 voice-grade loop, a DS-1 enterprise loop and the**
23 **difference between the two.**

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1 A. A DS-0 voice-grade loop is a single line over which voice service is provided.
2 DS-0 loops are generally used to provide service to mass market customers. A
3 DS-1 enterprise loop provides 24 individual DS-0's and is generally used to
4 provide service to enterprise customers.
5

6 **Q. What is the multi-line customer cross-over?**

7 A. The multi-line customer cross-over is the point at which it is more economical for
8 a company to provide service to an end user with multiple analog voice grade
9 lines using a loop with greater capacity (DS-1) rather than a single loop (DS-0)
10 for each voice grade line. A simple analogy may be helpful. We all know that it
11 is cheaper to buy donuts by the dozen. Assume a baker charges \$0.30 per donut
12 or \$2.99 per dozen. If you want to purchase 9 or fewer donuts, it's cheaper to buy
13 them individually, but once you need 10 or more, it's cheaper to buy a dozen, and
14 you will probably buy a dozen, even if you really only need 10. The same holds
15 true between DS-0s and DS-1s.
16

17 **Q. What guidance does the TRO provide for determining the appropriate cut-**
18 **off?**

19 A. Paragraph 497 of the TRO presents several key points on this issue. First, the
20 TRO defined mass market customers as those customers that "are analog voice

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1 customers that purchase only a limited number of POTS lines, and can be
2 economically served via DS-0 loops."¹
3 Second, the TRO recognized that, for certain customers, service providers are in a
4 position to make a decision as to whether they will provide service using DS-0 or
5 DS-1 facilities, based on the number of DS-0 loops needed to provide the
6 customer's voice services.² The FCC recognized that, for certain customers who
7 require multiple DS-0s, service providers are able to achieve better economics by
8 installing multiplexing equipment at the customer premises.³ Identifying the
9 quantity of DS-0 loops at which these economic benefits are realized—i.e., the
10 cross-over point—will, in essence, create a line of demarcation between the mass
11 market and the enterprise market.

12
13 **Q. Does Sprint agree with the FCC's use of an economic cross-over point as a**
14 **method for distinguishing between mass market and enterprise customers?**

15 **A.** Yes. Sprint has always recognized that some businesses have
16 telecommunications needs that are more similar to mass market residential
17 customers than large business customers. Indeed, many telecommunication
18 providers address a segment of the business market with the same marketing
19 techniques as they use for residential.

¹ TRO paragraph 497.

² TRO paragraph 497 states, "At some point, customers taking sufficient number of multiple DS-0 loops could be served in a manner similar to that described above for enterprise customers – that is, voice services provided over one or several DS-1s"

³ TRO footnote 1544 "The evidence in the record indicates that it may be viable to aggregate loops at a customer location and provide service at a DS-1 capacity or higher. Specifically, if a customer has enough lines to justify the expense of purchasing multiplexing equipment and a high-capacity line, it makes sense to aggregate the customer's loops..."

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1 **Q. Is there a simple example of the difference in marketing techniques between**
2 **those that providers use to address mass market customers and those that**
3 **providers use to address enterprise customers?**

4 A. The complexity and the volume of service required by any given customer are
5 two of the variables that determine which marketing methods have historically
6 been successful in acquiring new customers. For example, mass media
7 advertising is less effective than an extensive face-to-face sales visit would be for
8 a business with very complicated communications needs. But for a smaller
9 business with less complex needs, mass media advertising is often sufficient.

10

11 **Q. Does Sprint agree with the FCC statements that service providers must make**
12 **provisioning choices once they understand the customer's needs?**

13 A. Certainly. The service needs of a business customer at a specific physical
14 location determine the minimum facility capacity required to provide those
15 services. Based on the customer's needs, the service provider determines the most
16 efficient (i.e. least costly) facilities required to provide the services the customer
17 desires. The provider is rewarded with higher profit margins by minimizing
18 facility costs.

19

20 **Q. Is an economic cross-over analysis the best way for a service provider to**
21 **determine the most efficient, least-cost provisioning option?**

22 A. Yes. The service provider needs will determine the most efficient method of
23 serving the customer. Based on those service needs, the CLEC determines if it is

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1 cost effective to serve the customer with DS-0 loops or aggregate the service
2 needs over a DS-1 loop facility at the customer premises. At some level of
3 service need, the provider is better off serving the business customer with a DS-1
4 facility instead of multiple DS-0s.

5
6 **Q. Has Sprint developed an analysis of this cross-over?**

7 A. Yes. Exhibit JMM-1, attached to my testimony, shows the results from Sprint's
8 study. The average economic cross-over point, the point at which a multi-line
9 DS-0 customer is served more efficiently using a DS-1 capacity loop, was
10 calculated for Southwestern Bell, CenturyTel, and Sprint ILEC territories in the
11 state of Missouri.

12
13 **Q. What is the appropriate cut-off for multiline DS-0 customers (where it is
14 more economic to serve a multiline voice customer with a DS-1 loop)?**

15 A. The model results indicate that up to 10 DS-0s at a customer's location,
16 purchasing individual loops is more cost effective than purchasing single DS-1.
17 Above 10 DS-0s, the DS-1 becomes the more cost effective means of providing
18 service to the customer.

19
20 **Q. What are the cost components in the economic cost cross-over model for the
21 provision of service over a DS-1 facility?**

22 A. Our model includes the monthly recurring charges of the unbundled network
23 element DS-1 loops, the unbundled network element non-recurring charges for

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1 DS-1 loops, and the monthly costs of a channel bank installed at the customer's
2 premises used to multiplex multiple voice channels onto a DS-1 loop facility.

3

4 **Q. What are the cost components in the economic cost cross-over model for the**
5 **provision of service over a DS-0 facility?**

6 A. The model includes the monthly recurring charges of the unbundled network
7 element DS-0 loops and the non-recurring charges for unbundled network element
8 DS-0 loops. The non-recurring charges reflect the charges for the initial DS-0
9 loop and each additional loop ordered, assuming that all of the loops are installed
10 at the same time.

11

12 **Q. What are the sources of unbundled network element prices for the monthly**
13 **recurring services and the non-recurring services?**

14 A. The prices for Southwestern Bell are taken from the existing Interconnection
15 Agreement between Southwestern Bell and Sprint. CenturyTel's prices are from
16 the latest Interconnection Agreement filed with the Public Service Commission.⁴
17 Sprint's recurring prices and non-recurring prices are those that are currently
18 offered to carriers seeking interconnection and access to network elements under
19 section 251 of the Telecommunications Act in Missouri.

20

⁴ Interconnection, Resale and Unbundling Agreement between CenturyTel of Missouri, LLC and Missouri Telecom, Inc. in the State of Missouri, February 2003

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1 **Q. What is the source of the access line data used to determine the weighted**
2 **average UNE prices?**

3 A. The access line data are from the FCC Universal Service Fund model (HCPM)
4 Report for 2000 adjusted with the Universal Service Administrative Company
5 (USAC) lines in service for year-end 2001. For each company in the study, the
6 difference between the lines in HCPM and lines in USAC was applied to the wire
7 center level line counts to determine a more current estimate of access lines for
8 the studied ILECs.

9

10 **Q. What additional variables are included in the calculations?**

11 A. A weighted average cost of capital input is used for amortizing the non-recurring
12 charges. The 12.56% cost of capital was taken from the Sprint cost studies that
13 support its current UNE prices in Missouri.⁵

14

15 **Q. How are the non-recurring unbundled network element costs treated in the**
16 **economic cross-over analysis?**

17 A. The non-recurring unbundled network element charges for establishing DS-0 or
18 DS-1 services are amortized over a 24 month period using Sprint's weighted cost
19 of capital.

20

⁵ While 12.56% represents only Sprint's weighted cost of capital, it should be representative of the combined results of the three companies' cost of capital in Missouri. Further, substituting a specific company's data would not have a material impact on the resultant cross-over figure.

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1 **Q. How is the monthly cost of the channel bank at a DS-1 customer premises**
2 **calculated?**

3 A. The monthly cost of the equipment is calculated by dividing the total material cost
4 of the channel bank over the life of the asset, accounting for Sprint's cost of
5 capital, eleven year depreciation life, income tax, and maintenance.

6
7 Material prices reflect the size of the channel bank and cards that would be
8 installed at a customer premises capable of multiplexing one DS-1 into DS-0s.
9 The material was amortized using Sprint's annual cost factors from the same Cost
10 of Local Exchange Telecommunications Services UNE cost studies mentioned
11 above. Labor related to the installation of the customer premises channel bank
12 was treated consistent with the UNE non-recurring charges for the DS1 loop and
13 amortized over 24 months.

14

15 **Q. How are these cost components used to calculate a state-wide average cross-**
16 **over between unbundled DS-0 and DS-1 loops?**

17 A. The model calculates the UNE provisioning costs of both DS-0 and DS-1
18 facilities as described above for each central office in the state of Missouri served
19 by the largest LECs (Southwestern Bell, CenturyTel and Sprint). A weighted
20 average cost for each MRC and NRC is computed by multiplying the central
21 office specific result by the percentage of access lines in that central office. The
22 weighted average cost of a DS-1 loop is then divided by the weighted average
23 cost of a DS-0 loop.

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1 **Q. The cross-over calculations produce a state-wide average cross-over point.**
2
3 **Why does Sprint calculate a single, statewide average cross-over point,**
4 **rather than a market-specific cross-over point or even an ILEC-specific**
5 **cross-over point?**

6 A. The realities of the way that marketing efforts are conducted lead Sprint to believe
7 that a single statewide average cross-over point is more efficient and more useful.
8 For example, if a telemarketer is pursuing sales opportunities among small
9 businesses in Missouri the telemarketer will require a single point of distinction
10 that determines whether s/he is able to provide UNE-P based service to the
11 customer or not. The telemarketer does not know whether the customer being
12 called resides in one MSA or another, and quite possibly neither does the
13 customer. Similarly, a direct-visit salesperson making sales visits throughout the
14 St. Louis MSA is unaware of the point at which s/he moves from one UNE zone
15 to another. It is more efficient to have a single cross-over point that the
16 salesperson can apply to all potential customers, rather than maintain a veritable
17 roster of potential cross-over points based on a potential customer's MSA, or
18 market, or UNE zone, etc. Because Sprint's estimate is an average, the statewide
19 cross-over will, on average, be efficient for serving customers throughout the
20 state, even if it is slightly understated or overstated for any single customer.

21 **Q. Does this conclude your testimony?**

22 A. Yes.

TRO Economic Business Case
 DSO to DS1 Crossover

State = Missouri
 Company = State
 Access Lines = Total

A	B	C	D	E	F
Row	Description	DS1 + Channel Bank	DS0	Crossover DS0 Quantity	Crossover Rounded DS0 Quantity
10	Weighted Average				
11	MRC	\$ 157.45	\$ 20.53		
12	NRC - Amortized	\$ 32.85	\$ 0.59		
13	Total	\$ 190.30	\$ 21.12	9.01	10
14					

Inputs

Row	Assumed Term
4	Months - MRC 1
5	Channel Bank (CB)
6	Cost per DS1 \$51.45
7	Assumed Term
8	Months - NRC 24
9	Cost of Capital
10	12.56%
11	Add'l NRC DS0 Quantity
12	Number of DS0s 9

UNE DS0 Loop MRC Rates					
State	Zone	SouthwesternBell	Century	Sprint	
Missouri	1	\$12.71	\$53.84	\$34.18	
	2	\$18.64	\$48.39	\$64.56	
	3	\$19.74	\$29.05	\$115.13	
	4	\$16.41	\$19.14	\$0.00	
Weighted Average		\$20.53			

UNE DS1 Loop MRC Rates					
State	Zone	SouthwesternBell	Century	Sprint	
Missouri	1	\$91.06	\$160.31	\$127.97	
	2	\$95.45	\$160.31	\$266.23	
	3	\$97.10	\$160.31	\$250.25	
	4	\$91.25	\$160.31	\$0.00	
Weighted Average *		\$157.45			

* Includes Channel Bank

UNE DS0 Loop NRC Rates					
State	Description	SouthwesternBell	Century	Sprint	
Missouri	NRC-First	\$19.55	\$0.00	\$69.80	
	NRC-Additional	\$8.32	\$0.00	\$55.06	
	S.O.-First	\$5.00	\$49.31	\$4.18	
Weighted Average		\$12.39			

UNE DS1 Loop NRC Rates					
State	Description	SouthwesternBell	Century	Sprint	
Missouri	NRC-First	\$102.47	\$0.00	\$275.04	
	NRC-Channel Bank*	\$552.03	\$552.03	\$552.03	
	S.O.-First	\$5.00	\$294.07	\$4.18	
Weighted Average		\$693.89			

* CLEC cost to install the channel bank at customer premises.

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is Randy G. Farrar. I am presently employed as Senior Manager -
3 Network Costs for Sprint/United Management Company. My business
4 address is 6450 Sprint Parkway, Overland Park, Kansas, 66251.

5

6 **Q. What is your educational background?**

7 A. I received a Bachelor of Arts degree from The Ohio State University,
8 Columbus, Ohio, with a major in history. Simultaneously, I completed a
9 major program in economics. Subsequently, I received a Master of
10 Business Administration degree, with an emphasis on market research, also
11 from The Ohio State University.

12

13 **Q. What is your work experience?**

14 A. From 1978 to 1983 I was employed by the Public Utilities Commission of
15 Ohio. My positions were Financial Analyst (1978 - 1980) and Senior
16 Financial Analyst (1980-1983). My duties included the preparation of Staff
17 Reports of Investigation concerning rate of return and cost of capital. I also
18 designed rate structures, evaluated construction works in progress,
19 measured productivity, evaluated treatment of canceled plant, and
20 performed financial analyses, for electric, gas, telephone, and water utilities.
21 I presented written and oral testimony on behalf of the Commission Staff in
22 over twenty rate cases.

23

1 I have worked for Sprint Corporation or one of its predecessor companies
2 since 1983. From 1983 to 1986 I was Manager - Rate of Return. I
3 presented written and/or oral testimony before state public utilities
4 commissions in Iowa, Nebraska, South Carolina, and Oregon.

5
6 From 1986 to 1987 I was Manager - Local Exchange Pricing. I investigated
7 alternate forms of pricing and rate design, including usage sensitive rates,
8 extended area service alternatives, intraLATA toll pricing, and lifeline rates.

9
10 Since 1987, I have held various positions dealing with telecommunications
11 cost issues. From 1987 to 1992 I was Manager - Local Exchange Costing.
12 In 1992 I was promoted to Manager - Network Costing and Pricing. I
13 performed financial analyses for various business cases, analyzing the
14 profitability of entering new markets and expanding existing markets,
15 including Custom Calling, Centrex, CLASS and Advanced Intelligent
16 Network features, CPE products, Public Telephone and COCOT, and
17 intraLATA toll. I was a member of the United States Telephone
18 Association's New Services and Technologies Issues Subcommittee from
19 1989 to 1992, and the Economic Analysis Training Work Group from 1994
20 to 1995.

21
22 In 1997 I was promoted to my present position. I am an instructor for
23 numerous training sessions designed to support corporate policy on pricing

1 and costing theory, and to educate and support the use of various costing
2 models. I am responsible for the development and support of cost models
3 concerning unbundled network elements and wholesale discounts. Since
4 1995, I have presented written and/or oral testimony before the Illinois
5 Commerce Commission, the Pennsylvania Public Utility Commission, the
6 New Jersey Board of Public Utilities, the Florida Public Service Commission,
7 the North Carolina Utilities Commission, the Public Utilities Commission of
8 Nevada, the Public Utility Commission of Texas, the Georgia Public Service
9 Commission, the Arizona Corporation Commission, the New York Public
10 Service Commission, the Corporation Commission of Oklahoma, the
11 Missouri Public Service Commission, the Virginia State Corporation
12 Commission, and the Federal Communications Commission on the avoided
13 costs of resold services, the cost of unbundled network elements, reciprocal
14 compensation, access reform, and universal service issues.

15
16 **Q. What is the purpose of your Direct Testimony?**

17 A. The purpose of my Direct Testimony is to support Sprint witness Dr. Brian
18 Staihr's testimony regarding the cross-over point for multi-line DS-0 mass
19 market customers. My testimony provides the calculations used to
20 determine the economic crossover between provisioning DS-0 (voice grade)
21 loops and DS-1 loops.

22
23 **Q. Has Sprint developed an economic crossover analysis?**

1 A. Yes. Attachment RGF-1, calculates the average economic crossover a
2 competitive local exchange carrier (CLEC) would experience in serving
3 analog customers in the BellSouth territories within the state of Georgia,
4 based on the number of analog voice lines used by the customers.

5

6 **Q. What is the appropriate cut-off for multi-line DS-0 customers (where it**
7 **is more economic to serve a multi-line customer with a DS-1 loop)?**

8 A. The model results indicate that for up to 9 DS-0s at a customer's location,
9 purchasing individual loops is more cost effective than purchasing a single
10 DS-1.

11

12 **Q. What are the cost components in the economic cost crossover model**
13 **for the provision of service over a DS-1 facility?**

14 A. The Sprint model includes the monthly recurring charges of the unbundled
15 network element DS-1 loops, the unbundled network element non-recurring
16 charges for DS-1 loops, and the monthly costs of a channel bank installed at
17 the customer's premises used to multiplex multiple voice channels onto a
18 DS-1 loop facility.

19

20 **Q. What are the cost components in the economic cost crossover model**
21 **for the provision of service over a DS-0 facility?**

22 A. The model includes the monthly recurring charges of the unbundled network
23 element DS-0 loops and the non-recurring charges for unbundled network

1 element DS-0 loops. The non-recurring charges reflect the charges for the
2 initial DS-0 loop and each additional loop ordered.
3

4 **Q. What are the sources of unbundled network element prices for the**
5 **monthly recurring services and the non-recurring services?**

6 A. All unbundled network element prices are Georgia Commission-approved
7 from Docket No. 14361-U.
8

9 **Q. What is the source of the access line data used to determine the**
10 **weighted average UNE prices?**

11 A. The access line data are from the FCC's Universal Service Fund model,
12 HCPM (Hybrid Cost Proxy Model), adjusted with USAC (Universal Service
13 Administrative Company) lines in service. HCPM provided lines by wire
14 center as of 2000. USAC provides 2001 access line data by company. The
15 difference between the lines in HCPM and lines in USAC was applied to the
16 wire center level line counts to determine a more current estimate of access
17 lines for the studied ILECs.
18

19 **Q. What additional variables are included in the calculations?**

20 A. A weighted average cost of capital input of 13.07% is used for amortizing
21 the non-recurring charges. This is equal to the cost of capital calculated by

1 the FCC Wireline Competition Bureau in the recent Verizon-Virginia –
2 WorldCom Arbitration Order.¹
3

4 **Q. How are the non-recurring unbundled network element costs treated in**
5 **the economic crossover analysis?**

6 A. The non-recurring unbundled network element charges for establishing
7 either multiple DS-0s (at one time) or DS-1 services are amortized over a
8 24-month period using the weighted cost of capital. The 24 months
9 represents the average customer life.
10

11 **Q. How is the monthly cost of the channel bank at a DS-1 customer**
12 **premises calculated?**

13 A. The monthly cost of the equipment is calculated by dividing the total
14 material cost of the over the life of the asset, accounting for the cost of
15 capital, nine year depreciation life, income tax, maintenance, and sales tax
16 of 4%.
17

18 Material prices reflect the size of the channel bank and cards that would be
19 installed at a customer premises capable of multiplexing one DS-1 into
20 DS-0s. The material was then amortized. Labor related to the installation of
21 the customer premises channel bank was amortized over 24 months.

¹ CC Docket No. 00-218, In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration, Memorandum Opinion and Order, August 29, 2003.

1 **Q. How are these cost components used to calculate a state-wide**
2 **average crossover between unbundled DS-0 and DS-1 loops?**

3 A. The model calculates the UNE provisioning costs of both DS-0 and DS-1
4 facilities as described above for each central office in the state of Georgia
5 served by BellSouth. A weighted average cost for each MRC and NRC is
6 computed by multiplying the central office specific result by the percentage
7 of access lines in that central office. The weighted average cost of a DS-1
8 loop is then divided by the weighted average cost of a DS-0 loop.

9

10 **Q. What is the economic crossover result produced in the model.**

11 A. The model results indicate that for up to 9 DS-0s at a customer's location,
12 purchasing individual loops is more cost effective than purchasing a single
13 DS-1. Above 9 DS-0s, the DS-1 becomes the more cost effective means of
14 providing service to the customer.

15

16 **Q. Does this conclude your Direct Testimony?**

17 A. Yes, it does.

EXHIBIT 25

**STATE OF MISSOURI
PUBLIC SERVICE COMMISSION**

At a session of the Public Service Commission held at
its office in Jefferson City on the 24th day of
February, 2004.

In the Matter of a Commission Inquiry into)
the Possibility of Impairment without)
Unbundled Local Circuit Switching When)
Serving the Mass Market)

Case No. TO-2004-0207

**ORDER ESTABLISHING GEOGRAPHIC MARKETS
AND ENTERPRISE MARKET CUTOFF****Syllabus:**

This order establishes the exchange as the appropriate geographic market over which to conduct the impairment analysis. It also establishes that the DS0 cutoff is ten DS0 lines (that is, it is more economical to serve a customer with a DS1 line than with ten or more DS0 lines).

Background:

The purpose of this case is to make certain determinations about the state of competition (and perhaps the potential for competition) to provide *basic local telecommunications service* to residential and small business customers in Missouri. The Federal Communications Commission (FCC), in its Triennial Review Order,^[1] made a general finding that Competitive Local Exchange Carriers (CLECs) would be impaired in their ability to compete for these customers if the CLECs were not able to purchase unbundled local switching capacity from Incumbent Local Exchange Carriers (ILECs). But the FCC did not make this finding un rebuttable; rather it left it up to state commissions to examine the markets in detail to determine if this general finding is not valid in specific markets. In addition to determining the geographic market, the FCC also left it to the state commissions to determine the demarcation (in terms of the number of lines) between mass market customers and enterprise customers. Armed with these two determinations, the state commissions are then to conduct an analysis to find whether impairment exists in specific markets.

Given the nature of the task allotted to this Commission by the FCC, this case was split into

three phases. In this first phase, the parties addressed and the Commission will decide the following two issues:

- 1) For purposes of examining whether there is "non-impairment" in the provision of unbundled local switching to serve mass-market customers, what are the relevant geographic markets within the state of Missouri?
- 2) For purposes of the 47 CFR 51.319(d)(2)(iii)(B)(3) analysis, how many DS0 lines must be supplied to a multi-line DS0 customer before that customer is considered to be an enterprise customer rather than a mass market customer?

By making an early determination on these two issues, the Commission will be able to pursue a more focused impairment analysis, and ultimately be able to make a better, more informed final decision.

The Issues:

Geographic Market Area:

The FCC, in the TRO, has sent two general directives on this issue: it said 1) the geographic area has to be "granular," but 2) not so small that a potential competitor serving that market alone cannot take advantage of economies of scale and scope. The FCC's guidance on this issue is found at paragraphs 495-496:

495. The triggers and analysis described below must be applied on a granular basis to each identifiable market. State commissions must first define the markets in which they will evaluate impairment by determining the relevant geographic area to include in each market.¹⁵³⁶ State commissions have discretion to determine the contours of each market, but they may not define the market as encompassing the entire state. Rather, state commissions must define each market on a granular level, and in doing so they must take into consideration the locations of customers actually being served (if any) by competitors,¹⁵³⁷ the variation in factors affecting competitors' ability to serve each group of customers,¹⁵³⁸ and competitors' ability to target¹⁵³⁹ and serve specific markets economically and efficiently using currently available technologies. While a more granular analysis is generally preferable, states should not define the market so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market. State commissions should consider how competitors' ability to use self-provisioned switches or switches provided by a third-party wholesaler to serve various groups of customers varies geographically and should attempt to distinguish among markets where different findings of impairment are likely. The state commission must use the same market definitions for all of its analysis.¹⁵⁴⁰

496. Thus, for example, a state commission may choose to consider how UNE loop rates vary across the state, how retail rates vary geographically, how the number of